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ABSTRACT

This report presents a profile of students at Utah State University who are considering becoming secondary school teachers. Data were obtained from two questionnaires: one administered upon the student's entry to the first required course in the secondary education program and the other when the student exited from the course. A summary is given of data gathered on: (1) general demographic factors; (2) expectations and perceptions about teaching; (3) perceptions of attitude, knowledge, and skills; and (4) perceptions of the professional component of the program. Tables containing percentages and cross tabulations from which the data were drawn are appended, and recommendations are made for further study. References are included. (JD)

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A STATISTICAL PROFILE OF SECONDARY EDUCATION TEACHERS AT UTAH STATE UNIVERSITY AT THE COMPLETION OF THEIR TEACHER EDUCATION PROGRAM

March 1988

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A Statistical Profile of Secondary Education
Teachers at Utah State University at the Completion of
Their Teacher Education Program

February, 1988

In an effort to learn more about college students who are considering becoming secondary school teachers, the Department of Secondary Education at Utah State University has undertaken a long term project of collecting data on prospective teachers as they enter the department's program. In addition, similar data are being collected as prospective teachers graduate and certify.

Entry data were collected from 217 students (as the first phase of the project) during the 1985/86 academic year. A questionnaire was given to students who took Secondary Education 201, "Orientation To Teaching," the first course in the secondary teacher education program which most students take as sophomores or as soon as they consider becoming secondary teachers. Each year, about 250 students take this or equivalent courses. During the 1986/87 year, exit data were collected from 153 students who completed usable questionnaires. The data gathered from the Entry and Exit questionnaires, however, do not necessarily tap the responses of the same students, since students usually take at least two years to complete the teacher education program. For the same reasons, some of the data gathered by the Exit questionnaires are based on experience that students had at least two years ago and therefore, do not always reflect subsequent changes in the program. But overall, this preliminary data does provide useful information.

The following information draws upon data from both instruments (except as noted). The tables containing percentages and cross tabulations from which these data are drawn appear in the Appendix.

General Demographic Information

The men and women who enter the secondary teacher education program at Utah State University are likely to have graduated from a medium-to-large sized high school located in an urban or suburban area in Utah or the Inter-Mountain West. These individuals tend to be better-than-average students, entering with about a "B" GPA and maintaining that average through graduation and certification. Most of these prospective teachers carry about 15 credits per quarter and spend 15-20 hours per week studying.

Approximately 60 percent of the students who consider becoming secondary teachers complete their programs and receive a secondary teaching certificate. The gender configuration of entering and completing students stays fairly constant. Females predominate slightly with 58 percent at entry and 54 percent at exit.

But a striking difference appears in the amount of time that men and women take to complete their teacher training programs. On the Entry questionnaire, 70 percent of men were 17 to 24 years of age. On the Exit questionnaire, only 25 percent were under 25 while 75 percent were 25 years of age or older. One explanation for this finding is that a large proportion of the USU student body is LDS and many LDS men complete a two-year mission for their church, usually between the ages of 19-21. This two-year interruption delays graduation and completion of teacher training programs. As a result of the teaching experience derived from their missionary work, some men who had previously not considered teaching as a career, decide to become teachers. Another group (26 percent) of men and women decide to become teachers only after completing their bachelor's degrees. Finally, a large majority (76 percent) of students are

married and have more family and financial responsibilities, and this may delay completion of their programs.

One of the most interesting developments in recent years is the increased number of non-traditional students (those aged 25 years or older). Many of these are women returning to school after a number of years away, but a majority are men who take more than 4 continuous years of college to complete their degrees and teacher certification. Many non-traditional men have had one career, and are now training for a second career as a teacher.

Source of Financial Support

A large number of future secondary teachers at Utah State University support themselves by working. At entry, 66 percent work about 20 hours per week to support themselves, while, at exit, 82 percent work 20 hours per week in some paid employment. Because of the heavy demands on their time, students are strongly advised not to work during their student teaching quarter, and those that must work reduce their hours substantially. As might be expected, married students are more likely to work, and work for longer hours, than single students. Both married and single students supplement their work income with personal savings, support from parents, loans and scholarships.

Financial support is limited at USU but there is a marked gender difference in the awards. Forty-five women in the sample population have scholarships from USU, as opposed to 22 men. Why women earn twice as many scholarships as their male counterparts is not entirely clear, but there are some possible explanations: (1) women students outnumber men (58 percent female/42 percent male at entry, and 54 percent female/46 percent at exit); (2) female students may be better, more conscientious students, as shown by their GPAs, scholarships earned, and honors earned at the annual College of Education

awards banquet; (3) women appear to decide earlier to become teachers and tend to complete their programs earlier.

Academic Background and Achievement

Prospective secondary teachers graduate from medium-to-large size high schools. Their average graduating class size is 295 in high schools with total enrollments of about 1,200 students. Generally, the students come from urban and suburban areas, with only a small minority coming from rural areas.

Entering secondary education students were good students in high school with an average GPA of 3.17 or about a "B" average. It should be noted that this figure on high school GPA is based on incomplete data and is conservative, but this overall average is maintained through the first two years of university training. Students have an average GPA of 2.7 (B-) upon admission to teacher education which typically occurs just after they have taken Sec Ed 201. At the completion of their teacher training, their GPA averages 3.0 (B). This average compares favorably to the university-wide GPA average for all USU students of 2.8.

Most prospective teachers found their own public school teachers had reasonable expectations and demands; the schools and teachers, on average, expected competence but not excellence. From a mature perspective, these students wished that they had been challenged to a greater degree in their high school studies. Such findings are encouraging. Clearly, secondary education students at USU are good students both in high school and in college. Further, their grades improve slightly during advanced work in teaching majors/minors and teacher training.

Number of Hours of Study per Week

Both Entry and Exit students study an average of 20 hours per week with a

range of 12 to 55 hours. That figure increases greatly during the student teaching quarter. Of that 20 hours per week, about 5 hours are spent in the library. Considering that these students carry 14 to 16 credit hours per quarter, they are not putting in three hours of study for every hour in class. However, since about 82 percent of prospective secondary teachers who complete their programs of study work to help support themselves, the relatively low number of hours of study is more understandable.

Reading of Books, Newspapers, and Magazines Not Assigned

The low percentage of study time may explain why these students are not heavy readers. Entering secondary students read about 2 1/2 books during the previous year as free, unassigned reading, although they have read many more books and journals assigned for classes. A majority of students read the main local newspaper, the Logan *Herald Journal* and about 1/3 of the students read either the *Salt Lake Tribune* or the Salt Lake *Deseret News*. About 25 percent of students read other national newspapers, or newspapers from other localities. The most commonly read magazines are *Time* (40 percent), *Newsweek* (32 percent), and *Readers Digest* (39 percent). Nearly half of the men read *Sports Illustrated*, and 42 percent of men and women read a variety of other magazines.

Teaching Experience Prior to Entering Secondary Education

Students who enter secondary teacher education have considerable teaching experience, usually in volunteer settings. As a part of Sec Ed 201 or its equivalent, students get field experience in tutoring or serving as teachers' aides. In addition, about two-thirds have had experience in church teaching, more than a third have served as coaches, and about a fourth have served as camp counselors or in the Boy or Girl Scout programs.

Prospective secondary teachers who complete their programs have added to the above experience the following:

Sec Ed 201 = 30 hours serving as a teacher's aide or tutoring

Sec Ed 301 = at least 1 day in schools through field trip

Sec Ed 510 = 6 hours working with students

Methods classes = 10 to 40 hours in schools teaching lessons, etc.

Sec Ed 460, etc. = student teaching requires one full quarter in school full time (~200 hours directly teaching).

Teaching Majors and Minors, and Composite Majors

For a complete listing of majors, minors and composite teaching majors, please see Appendix. In general, students tend to change majors and minors. For example, at entry 14 men and women intended to pursue majors or minors in foreign languages. However, there isn't a strong demand for language specialties; only 5 men and 1 woman completed a foreign language major or minor. But, 26 women listed English as a major at entry, only 2 completed--even though the demand for English teachers is quite strong. Shifts in majors, therefore, do not seem to be based solely on demand.

In some cases, students are not permitted to have a teaching major/minor combination which is in little demand. For example, students may not major in psychology and minor in sociology. If either a psychology or sociology major is elected, another social science such as history, which is commonly taught in the public schools, must be selected. But there is a movement toward composite majors as students come to know about program offerings through advisement, talking to other students, and reading, etc. These composite teaching majors combine related majors and minors into coherent programs of studies. Composite majors typically require from 69 to 79 credits with 74 about typical. At

Entry, 48 students intended to complete composite majors whereas at Exit, 81 had completed composite majors--a gain of 33 students. About half of the approximately 160 students who certify each year have composite majors.

Quality of Advising

One of the most important improvements (in recent years) designed to directly help prospective teachers has been the hiring of professionally trained full-time advisors. The Department of Secondary Education has had a well trained, full-time advisor for more than 10 years. Recently other colleges and departments in the university have also hired full-time academic advisors, and students seem to be pleased with the quality of the advisement from both the Department of Secondary Education and the various academic departments offering teaching majors and minors.

Seventy-six percent of students rate the quality of their advising by advisors in their academic departments as "excellent" or "good." Only 6 percent consider their advisement "below average" or "poor." These data indicate high quality counseling by advisors in the academic departments in which students major (only a very small number of students with composite majors actually major in secondary education).

Likewise, 73 percent of future teachers find the quality of advising by the full-time advisor in Secondary Education to be "good" or "excellent." Twenty percent found advising to be "okay" and only 7 percent found their advising to be "below average" or "poor." The full-time advisor in Secondary Education advises a small number of students who major in Secondary Education via a composite major in social studies, biological sciences, etc., plus nearly all students who are seeking a teaching certificate in secondary education--well in excess of 300 students. In view of the number of students to be helped

and the complexity of the large numbers of majors and minors that prospective secondary teachers can select, there is no doubt that the full-time advisor is effective with 93 percent of students rating her work as "okay," "good," or "excellent."

Expectations and Perceptions About Teaching

In recent years, schools and teachers have been heavily criticized in the media. Our prospective teachers were asked how they felt about entering a profession which is the target of so much negative public attention. More than two-thirds of the women (68 percent) and slightly more than half of the men (55 percent) were entering teaching in spite of the criticism. Most future teachers think that the criticism teachers receive is not justified, and that most teachers work hard and are "pretty effective." Twenty percent of future teachers were entering teaching because they believe that they will be able to help bring about needed reforms. Only 3 percent were seriously disturbed by the criticism and thought that the "abuse in the media" would make it hard to teach effectively.

Twenty-five percent of both men and women are reconciled to the low salaries in teaching because of "job security and having summers off." Fifty-three percent of the women but only 41 percent of the men were committed to teaching because "the job is important enough in spite of the low salaries." About one-third of both men and women have real concerns about the low pay as a reflection of the low esteem in the eyes of the public. Surprisingly, only 1 percent of women and 6 percent of men found "the pay so low that I may not enter the profession."

In general, female prospective teachers tend to be less disturbed by criticism of the profession and low salaries than men. Since these are the

prospective teachers who have persevered and completed their degrees and teacher certification, they have apparently reconciled themselves to some of these disadvantages of the profession.

For several reasons, men tend to be somewhat more apprehensive about becoming teachers than women are. Probably the greatest reason is financial. Whereas 60 percent of women expect that husbands will work so that the family will have two incomes, only 46 percent of men expect that their wives will work. Probably as a result, 13 percent more men than women expect to have summer jobs and 5 percent more men than women expect to hold part-time jobs during the school year. Finally, 25 percent of the men (compared to only 2 percent of women) have or expect to have a business/farm, etc., to supplement their teaching salaries.

Perceptions of Attitudes, Knowledge, and Skills

When asked to rate themselves on their current attitudes, knowledge and skills on five point Likert scales, prospective teachers regarded themselves as confident, competent and committed. Responses to the same questions on the Exit Questionnaire were generally higher than on the Entry Questionnaire. For a complete summary of responses for both Entry and Exit, see Table 1 in Appendix A.

Ability to Relate to Young People

When asked to rate their abilities to relate to young people on the Entry Questionnaire, 91 percent of the women and 93 percent of the men rated themselves as "high" or "very high." On the Exit Questionnaire, 93 percent of the women and 92 percent of the men rated themselves as "high" or "very high." Although both men and women saw themselves as better able to relate to young

people upon completing their programs, 10 percent more women than men rated themselves "very high" at the completion of their programs.

Ability to Earn Students' Cooperation and Maintain Order

Prior to student teaching, future teacher are usually most concerned about their ability to maintain order and discipline in their classrooms. As they enter the program, 35 percent of future teachers rate their abilities on this dimension as "adequate," 56 percent rate themselves as "high," and 8 percent rate themselves as "very high." After their student teaching and at the completion of their program, these self-ratings have risen so that 14 percent rate themselves as "adequate," 71 percent rate themselves as "high" and 14 percent rate themselves as "very high." Although women tend to be somewhat more apprehensive about their ability to teach prior to student teaching, they are highly confident in their ability to organize and manage details both before and after completing their teacher education programs. This is one area in which women excel men at entry and exit. At the completion of their programs, both men and women are more confident of their abilities to obtain students' cooperation and to maintain order. This is most likely due to the positive experiences in student teaching.

Ability to Organize and Manage the Details of a Classroom

On the ability to organize and manage the details of a classroom, 75 percent of women rate themselves as "high" or "very high" at entry and this combined rating rises to 86 percent at exit. In contrast, only 63 percent of men rate this high at entry, but it rises to 83 percent at exit.

Ability to Deal Skillfully with Students Who Cause Serious Discipline Problems

As they enter the program, female prospective teachers rate themselves as "adequate" in their abilities to deal with serious discipline problems. Only

25 percent rate themselves as "high" and 10 percent rate themselves as "low." After student teaching and completing their programs, ratings have risen dramatically with 42 percent rating themselves as "adequate," 55 percent rating themselves as "high" or "very high," and only 2 percent rating themselves as "low." Men start off with more confidence in this ability: 42 percent rate themselves as "high" or "very high" at entry and this figure rises to 60 percent at exit.

Both men and women show higher scores upon completion, but the increases in the women's level of confidence in dealing with serious discipline problems is dramatic. Prospective teachers worry most about dealing with discipline problems, and these data show that prospective teachers who complete the program feel much more confident about dealing with discipline problems.

Ability to Help Handicapped Students in the Classroom

In estimating their abilities to help handicapped students, men were more confident than women at entry, but less sure of themselves on the Exit Questionnaire. For example, 11 percent of men rated themselves as "very high" at entry, but this declined to 6 percent at exit. Prospective secondary teachers take one Special Education course (Sp Ed 301), and apparently the student teaching experience proved to men that helping handicapped students was more challenging than they initially had thought.

Knowledge of Subject Matter in Major

With the completion of 45 or more hours in a teaching major and 30 hours in a teaching minor, prospective teachers are much more confident in their knowledge of majors and minors. For example, at entry 75 percent of females and 77 percent of males rate themselves as "high" or "very high" on knowledge of subject matter in their majors. At the completion of their programs, 91

percent of women and 90 percent of men rate themselves as "high" or "very high." Neither men nor women are as confident about their knowledge in their minor areas at the beginning of their programs. However, at completion, men are as confident in their minors as in their majors, but it is unclear why men rate themselves so much higher (males = 47 percent, females = 21 percent "very high") on knowledge of minor subject at exit.

Teaching Methods and Techniques

Several items were designed to assess prospective teachers' knowledge of specific teaching methods and techniques and their ability to apply these in their own classrooms. From the perspective of their instructors, the prospective teachers were very optimistic about their knowledge and abilities when they entered the teacher training program. Perhaps this can be explained by confidence about a newly chosen profession and some ignorance of the complexity of the teaching/learning task. As they complete the program, prospective teachers continue to rate themselves highly, but the increase is more modest and realistic. Sixty-nine percent of women and 76 percent of men rated themselves as "high" or "very high" at entry on their ability to adapt and translate information to the level and interest of students. This stayed about the same (75 percent) "high" or "very high" at exit for women, but rose to 86 percent for men.

Future teachers were modest about their knowledge of effective teaching methods, both before and after completing the program. At entry, 48 percent of women rated their knowledge as "adequate," with only 32 percent rating themselves as "high" or "very high." At exit, 51 percent of women rated themselves as "high" or "very high." At entry, 39 percent of men rated themselves as "high" or "very high," rising to 71 percent at exit. Since

effective teaching methods and techniques are based on technical (rather than intuitive) information derived from research, future teachers' modesty on this dimension seems justified.

At entry, 44 percent of women rated themselves as "high" or "very high" on their ability to apply effective teaching methods and techniques. After completion of the program, this rating had risen to 79 percent. Men rated themselves as 39 percent "high" or "very high" at entry but raised this estimation to 71 percent at exit.

Five questions pertaining to teaching methods and skills were assessed only on the Exit Questionnaire. In general, prospective teachers' assessment of their abilities in these areas corresponds with what methods classes instructors and supervisors of student teaching observe. For example, students learn how to use directed reading activities in SecEd 510, "Reading/Writing in the Content Areas." It is expected that they will incorporate these techniques into the teaching units that they create in their methods classes, and that they will use the techniques in their student teaching. Forty-four percent of both men and women rated their skills on helping students to read better as "adequate" while 35 percent rate themselves as "high" and 11 percent rate themselves as "very high." But surprisingly, even after taking the course, some 10 percent of both sexes rate themselves as "low" or "very low" in this skill.

About 40 percent of both men and women regard themselves as "adequate" in using information processing skills such as cognitive maps and advance organizers, with 42 percent rating themselves as "high" and 11 percent "very high." Seven percent consider themselves as "low" or "very low." Similar findings appear in the responses about knowledge concerning time-on task, high

expectations for students, etc. About 43 percent of both men and women consider themselves to be "adequate" in these skills, although 57 percent of men rated themselves as "high" or "very high" while only 50 percent of women rated themselves "high" or "very high."

Eighty-eight percent of men and women consider themselves to be "adequate" or "high" on their ability to assist students in scoring well on achievement tests. Since most prospective teachers haven't had explicit course work in test construction and study skills, these estimations might be seen as overconfident.

"Computer Literacy" or Ability to use a Computer for Instruction, Word Processing, or Processing Grades, etc.

Most students acquire their computer skills through Instructional Technology 522, "Computer Literacy for Educators." In addition, an increasing number of future teachers are buying their own personal computers and becoming competent in their use through experience and formal course work. Thirty-six percent rated themselves as "adequate" in computer skills but a surprising 57 percent rated themselves as "high" or "very high."

Skill in Creating an Accepting Climate in Which Students Feel Free to Ask Questions or Engage in Discussion

College students who consider becoming teachers usually like to discuss issues with friends and believe that they are quite skillful in creating a climate conducive to discussion. At entry, 78 percent of women and 80 percent of men rate themselves as "high" or "very high" on this skill. From the point of view of some methods class instructors, student teaching supervisors, and some research (Redfield & Rousseau, 1981), however, both prospective teachers

and experienced public school teachers tend to overestimate their skills on this dimension.

But prospective teachers seem more realistic in assessing their skills in asking questions and leading discussions than in setting the climate for discussion. Nevertheless, a continuing problem for student teachers, and teachers in general, is that their discussions tend to be factual recitations rather than thoughtful discussions (Ryan, 1973, Redfield & Rousseau, 1981). Fifty-eight percent of entering men and women rated themselves as "high" or "very high" on this dimension whereas 78 percent of females and 88 percent of males completing their programs rated themselves "high" or "very high." There is no indication in the data why men rate themselves higher than women. But both men (89 percent) and women (96 percent) have a "high" or "very high" appreciation for the complexity of teaching at exit.

One skill, however, in which women excel over men is the ability to listen and observe. In general, men tend to rate themselves higher on attitudes, knowledge and skills than do women. However, women rated themselves relatively higher and were more confident before and after student teaching than men on listening and observation skills. At entry, 77 percent of women rated themselves as "high" or "very high" on listening skills compared to 56 percent of men. At exit, 84 percent of women rated themselves as "high" or "very high."

Males regard themselves as better able than the women do in making the transition from being a student to becoming a capable teacher. As they enter the program, men and women are about equally optimistic: about 70 percent rate themselves as "high" or "very high." However, at exit, an astonishing 96 percent of men compared to 82 percent of women rate themselves "high" or "very

high." Apparently progressing through the program makes men feel more confident than it does women.

Both males and females show substantial gains from the beginning to the end of their programs in their ability to maintain idealism in the face of discouragement. Fifty-six percent of both men and women rate themselves as "high" or "very high" at the beginning of the program, and this rises to 87 percent rating themselves "high" or "very high" at the end for both sexes. Having proven themselves on the firing line of student teaching, students' idealism has not declined. Perhaps prospective teachers become more realistic but maintain their idealism through their training.

As they enter the program, 66 percent of women and 62 percent of men believe that they are "high" or "very high" in recognizing needed changes in themselves. After completing the program, 87 percent of both women and men rate themselves as "high" or "very high" on this dimension. Although males consistently rate themselves as more confident than their female counterparts, both men and women were more self-confident, and more confident in their teaching abilities at exit than at entry. As they entered, 79 percent of men but only 61 percent of women rated themselves as "high" or "very high." At exit, 92 percent of men and 80 percent of women rated as "high" or "very high."

These are curious findings when compared to measures of achievement. Women typically earn slightly higher grade point averages in their college work and teacher training. In addition, women consistently garner 75 to 80 percent of the outstanding achievement awards at the College of Education Awards Banquet each spring.

There are at least two explanations for women's lack of confidence. The first is cultural: girls and women are expected to be less assertive and to be

somewhat more reserved than boys and men. Another very real explanation is that women teachers often have a harder time dealing with serious discipline problems. For example, high school students, especially boys, who are seriously out-of-control, pose a greater risk to female teachers than to male teachers.

Nevertheless, there is little doubt that women are as capable as men. Furthermore, they become much more confident as they move through teacher training and student teaching. It is important that those who advise women inform them of such findings and encourage them to pursue careers in secondary education. It should be noted that these findings are consistent with general findings from the adolescent and adult development literature. Papalia and Olds (1981, p. 361), two female developmental psychologists, relate the following in their widely read text, Human Development:

> Male and female students have tended to develop differently, both intellectually and with regard to personality, and in recent years the disparities have been increasingly questioned. One problem is that women students have lower self-esteem and lower aspirations than men. When 3,347 undergraduates at six prestigious colleges were questioned, 61 percent of the men said they felt confident that they were well prepared for graduate school, compared to only 49 percent of the women. More men than women expected to earn a doctorate, go on to medical or law school or into business management, while more women than men prepared assignments before each class, took careful notes, and panicked over exams and assignments.

At entry, 83 percent of men and 71 percent of women rate themselves as "high" or "very high" on their ability to teach successfully. At exit, 94 percent of men and 86 percent of women rate themselves as "high" or "very high" in their confidence to teach successfully. Again, the experience gained in the program seems to enhance both men's and women's confidence to a high degree, with greater gains by women but higher total ratings by men.

The 1960s were a time of great social commitments, and in 1968 nearly 23 percent of entering freshmen expressed an interest in a career as a teacher. Interest in teaching as a career declined to a low of less than 5 percent in 1982, and then climbed in 1987 to 8 percent of freshmen who planned to pursue careers in elementary or secondary education (Rothman, 1988, p. 5). In another recent nationwide poll of high school seniors, 22 percent indicated an interest in teaching as a career--about the percent that the Carnegie Forum on Education and the Economy predicts will be needed to fill the classrooms in the 1990s (Clark, 1987, p. 503).

Qualified teachers are needed to meet the needs of an expanding school age population in Utah and the nation. The Department of Education is predicting a sharp rise in demand for teachers next fall, and the demand is expected to "grow steadily" through 1995 (Sheler, 1988, p. 51). The need for qualified secondary teachers in some specialties such as math, science and special education is critical, and yet, the number of new teachers produced has declined slightly since 1980. For example, in 1980, at Utah State University, 182 prospective teachers received secondary teaching certificates, but only 156 certified teachers per year, on the average, have been produced during the past seven years.

There is some reason for alarm in these data. If 22 percent of high school seniors are interested in teaching as a career, but only 8 percent enrolled freshmen express that interest, either another career was chosen or many high school seniors with an interest in teaching didn't enroll for college. There is further attrition: at USU only 60 percent of those who begin programs in secondary teacher education complete them. Will there be enough teachers for the 1990s?

Considering all of the bad publicity that teaching has had during this decade, a surprising 80 percent of the prospective teachers have a "high" or "very high" commitment to teaching as a career. As they enter the program, 81 percent of women and 77 percent of men rate themselves as "high" or "very high" on commitment to a career in teaching. After completion, men remain at 77 percent, but women's ratings have fallen to 76 percent. Even though women's ratings fell slightly, the commitment remains relatively strong. There is no doubt that this is, at least partly, an idealistic commitment; nevertheless, careers in the helping professions are built on ideals and such commitment is encouraging to see.

Teacher education courses, as a group, are regarded as "less useful" or "about equal" to courses in the major or minor. Among women, 54 percent regard teacher education courses as "less useful," 35 percent regard them as "about equal," and 6 percent find them "more useful." Forty-seven percent of men find teacher education courses "less useful," 43 percent "about equal," and only 3 percent "more useful." The striking exception to these findings is the high rating accorded to student teaching. Fully 97 percent of men and women find student teaching equal to or "more useful" than other education courses, and 91 percent find their student teaching "about equal" or "more useful" than major/minor courses. Clearly, student teaching is the highlight experience of a prospective teacher's educational preparation.

Perceptions of Professional Component

Secondary Education 201 "Orientation to Secondary Teaching"

The first course in professional education most prospective secondary teachers take is Secondary Education 201, "Orientation to Secondary Teaching." Students are encouraged to take this course near the end of the sophomore year

or at the beginning of their junior year. However, at least 20 percent of our students take this course after receiving their bachelor's degrees as they belatedly decide to become teachers.

The course is regarded as "easy" to "medium" in difficulty, and 74 percent of women regard it as well taught, whereas only 56 percent of men rate the quality of instruction as "good" or "excellent." Women also rate the books and instruction materials more highly than men. Most of the instructors of this course are women and it may be that female prospective teachers feel more comfortable with such instructors and therefore rate the class more highly than men. Martina Horner (1986), past president of Radcliffe College and a Harvard psychologist, has found similar patterns among other women students.

In terms of its usefulness, Secondary Education 201 is seen by most students as "adequate" although about 45 percent of students regard it as "good" or "excellent." Judging by the comments written by students on their questionnaires, older students with more experience and those who have already earned bachelor's degrees find Secondary Education 201 less useful than do younger students. This finding has caused 201 instructors to identify alternative assignments and activities for this non-traditional population.

Secondary Education 301 "Teaching Skill Laboratory"

Secondary Education 301 "Teaching Skills Laboratory" is a required course designed to develop generic teaching skills during the second quarter of professional teacher education. It is rated as "medium" in difficulty by most (64 percent) students, but 27 percent regard it as "easy" whereas only 6 percent rate it as "hard."

The quality of instruction of Secondary Education 301 is highly rated with 82 percent of both men and women rating it "excellent" or "good." Quality of

books and materials is rated "good" by 58 percent of students and the course's usefulness is rated "good" by 46 percent of students and "excellent" by 22 percent.

Secondary Education 302 "Social Foundations of Education"

Secondary Education 302 "Social Foundations of Education" is a required course for all who seek a teaching certificate. Most students (58 percent) see it as "medium" in difficulty but 37 percent regard it as "easy." Sixty percent of prospective teachers regard the course as "good" or "excellent" in terms of quality of instruction. Fifty-three percent of the men rate the books and materials as "good" or "excellent" whereas only 42 percent of women rate the teaching materials this high. Unfortunately, most students don't see the usefulness of the course since 38 percent rate it as "poor" and 31 percent rate it as only "adequate" on the "Useful" dimension. Prospective teachers at USU appear to prefer "how-to-do-it" and action classes such as methods classes and student teaching. Theoretical classes such as social foundations suffer somewhat in comparison.

Special Methods of Teaching Courses

Four methods classes are taught by instructors in the Department of Secondary Education: Secondary Education 310, "Methods of Social Studies"; Secondary Education 320, "Methods of English"; Secondary Education 330, "Methods of Science"; and, Secondary Education 340, "Teaching Modern Languages". Beginning in 1987, "Methods of Mathematics" was taught by instructors in Secondary Education rather than by instructors in the Mathematics Department, and the "Teaching Modern Language" course was taught by the Department of Languages and Philosophy. However, these data do not reflect those changes. In addition, special methods classes are taught in several

departments on campus which offer teaching majors and minors such as Administrative Systems and Business Education, Agricultural Education, Health Education, Physical Education & Recreation (including coaching), and Home Economics.

All special methods courses taught within the Department of Secondary Education and by other departments were evaluated together. In terms of the difficulty of the methods courses, 48 percent of women regarded methods classes as "hard" whereas only 17 percent of men regarded these classes as "hard." This is a rather dramatic difference and is especially significant. When men's and women's scores are combined, 33 percent of men and women regard methods classes as "hard," an average of 51 percent rate methods classes of "medium" difficulty, and only 16 percent rated methods classes as "easy." There is no ready explanation for these findings.

Overall, methods courses were rated quite highly in terms of the quality of instruction. Although women rate methods courses as more difficult, they rate the quality of instruction in methods courses higher than do men. For example, 76 percent of women rate the instruction as "excellent" whereas only 60 percent of men gave an "excellent" rating. Women also rate the quality of the books and teaching materials in their methods courses more highly than do men. Ninety-one percent of females rated books and teaching materials as "good" or "excellent," whereas only 74 percent of men rated their materials this high. Again, it is not clear why such differences appear.

Finally, 93 percent of women rate their methods courses as "excellent" or "good" in terms of usefulness whereas 85 percent of men gave an "excellent" or "good" rating. Only 10 percent rated their methods course as "adequate" and no prospective teachers rated these courses as "poor."

Secondary Education 345 "Metrics Education"

Secondary Education 345 "Metrics Education" was required by the State Board of Education but that requirement has now been dropped since the Congress of the United States has shown no inclination to place the United States on a metric system. In general, the course was regarded as "easy" in terms of its difficulty, perhaps because it was self-paced and graded on a Pass/Fail basis. Sixty-two percent of students rated the quality of instruction as "good" or "excellent." Likewise, 71 percent rated the books and materials as "good" or "excellent." However, only 46 percent of students regarded the course as "good" or "excellent" in terms of its usefulness.

Psychology 366 "Educational Psychology"

Most students find Psychology 366, "Educational Psychology", to be of "medium" difficulty, with 33 percent of students finding it "easy," and 17 percent finding it difficult. About 50 percent of students rate the quality of instruction as "good" or "excellent." However, only 39 percent of students rate the books and teaching materials as "good" or "excellent." Thirty-nine percent of students find the course useful, 31 percent consider it "adequate," and 30 percent regard it as "poor" in terms of usefulness.

The Department of Psychology is to be commended for its efforts to improve the instruction and relevance of the course. It should be noted that these findings, for the most part, do not reflect the efforts of Dr. Ken Kiewra who has been hired by the Psychology Department for the primary purpose of improving the instruction of Psychology 366. Judging by recent course evaluations of Dr. Kiewra's Psychology 366 classes, future evaluations on Exit Questionnaires will be higher.

Secondary Education 510 "Reading and Writing in the Content Areas"

The Department of Secondary Education at USU has pioneered the teaching of reading and writing in the content areas in Utah schools. Secondary Education 510, Reading and Writing in the Content Areas, is required of all who certify in Secondary Education so that every teacher realizes an obligation and has the skills to help public school students read and write more effectively.

About 36 percent of prospective teachers rate this course as "hard," 57 percent rate it "medium" in difficulty, and only 7 percent rate it as "easy." Although the course is difficult, it is regarded as well taught with 60 percent rating it as "excellent" in quality of instruction, 28 percent rating it as "good," 10 percent as "adequate," and only 5 percent as "poor." Seventy-one percent rate books and teaching materials as "good" or "excellent," and 77 percent rate the course as "good" or "excellent" in its usefulness.

Instructional Technology 442 "Utilization & Production of Media for Secondary Teachers"

Instructional Technology 442 "Utilization and Production of Media for Secondary Teachers" is a course designed especially for secondary teachers to help them select and produce appropriate media for their students. Most future teachers (58 percent) regard it as "medium" in difficulty, 92 percent evaluate it as "excellent" or "good" in quality of instruction, 82 percent rate the books and teaching materials as "good" or "excellent," and 83 percent rate its usefulness as "good" or "excellent." The Department of Instructional Technology should be commended for the excellent ratings received by this service course.

Instructional Technology 522 "Computer Literacy for Educators"

Instructional Technology 522 "Computer Literacy for Educators" is the

course used most often by prospective teachers to satisfy the requirements for computer literacy. Most students (53 percent) regard it as "medium" in difficulty, with 26 percent regarding it as "easy" and 20 percent regarding it as "hard." Sixty-nine percent regard the course as "good" or "excellent" in quality of instruction, and 77 percent rate it as "good" or "excellent" in usefulness. It should be noted that men regard the course as considerably more useful. For example, 50 percent of men rate the course as "excellent" in terms of usefulness whereas only 22 percent women rate it this high. Conversely, 35 percent of women but only 9 percent of men evaluated the course as "adequate." This finding, although not statistically significant, fits the stereotype of men's preference for, and comfort with, technology.

The greatest potential for improvement in this course is in the books and teaching materials. Only 39 percent of men and women rate the books and materials as "good" or "excellent," with most students (46 percent) giving an "adequate" or (15 percent) "poor" rating to the teaching materials. This problem is being addressed by Dr. Steve Soulier of the Instructional Technology Department who is writing a book tailored for the course.

Special Education 301 "Education of the Exceptional Child"

Special Education 301, "Education of the Exceptional Child," is a required class for all who certify in secondary education. Most students perceive it as "medium" (69 percent) or "difficult" (21 percent) in terms of its demands. Seventy-four percent of men and women rated the quality of instruction as "good" or "excellent" with substantially more women giving an "excellent" rating. The quality of books and materials was rated as "good" or "excellent" by 75 percent of students, nearly identical to the rating given the quality of

instruction. Again, about 70 percent rated the usefulness of the course "good" or "excellent."

Secondary Education 460 "Student Teaching"

Most prospective teachers (65 percent women, 48 percent men) consider their student teaching quarter to be difficult. There are several reasons why student teaching is regarded as hard. Judging from comments made by students on their questionnaires, the time required to prepare for the classes they were teaching was far greater than they had expected. For example, it is not uncommon for conscientious student teachers to spend 7 hours in the school to which they are assigned, and then go home to spend another 4 to 6 hours preparation for the next day. For some (39 %) students, having to work during their student teaching quarter was also a source of difficulty. Fortunately, most prospective teachers are able to arrange their affairs so that they don't have to work during the student teaching quarter. Those that must work are able to reduce the number of hours worked per week. Over 90 percent of prospective teachers rate the quality of instruction/supervision as "good" or "excellent." As the culminating experience for prospective teachers, student teaching apparently is an exciting and satisfying time when all that has been learned can be put to use.

Like the quality of instruction/supervision, the quality of books and materials is rated highly. Finally, the usefulness of student teaching is rated higher than any other component of the teacher education program. An average of 95 percent of men and women rate the usefulness of the student teaching experience as "good" or "excellent."

Secondary Education 450 "Student Teaching Seminar"

Secondary Education 450 "Student Teaching Seminar" is a 3 credit seminar

taken concurrently with student teaching. Whereas student teaching is perceived as "hard" by most, the Seminar is seen by most student teachers as "easy." This is probably due to the nature of the seminar which is designed to provide a supportive environment in which to share problems and their solutions for student teachers of a particular subject, and to review teaching methods and techniques which were introduced during the special methods classes.

The quality of instruction, quality of materials, and the usefulness of Secondary Education 450 Seminar are rated lower than Student Teaching. Seventy-two percent of men and women rate the Seminar as "good" or "excellent," and 66 percent rate the teaching materials as "good" or "excellent." Again, 67 percent rate the seminar as "good" or "excellent" in terms of its usefulness.

There are several possible explanations for these findings. One is that strong student teachers have less need for the seminar and would prefer to spend the time preparing for their classes. Another problem that might affect ratings is that student teachers must travel, often considerable distances, to attend the seminar. This is an especially serious problem during the winter quarters when traveling can be hazardous. Another possible explanation for the lower ratings of seminars is that the lack of structure in the seminar format may be somewhat uncomfortable for some student teachers.

Summary and Comments

The typical male prospective teacher in secondary education is likely to be about 22 years of age at entry and more than 26 years of age at completion. The typical female prospective teacher is likely to enter and complete the program about 2 years sooner. Both men and women graduate from medium-to-large sized high schools from an urban or suburban area in Utah or the Inter-Mountain West. Although the University is known for its excellence in agricultural

research and education, only a tiny fraction of USU students come from farms and rural areas nowadays.

The typical prospective teacher tends to be a somewhat better than average student, entering with a 3.0 GPA. Prospective teachers maintain their GPA through their college years and have a 3.0 GPA at graduation. The typical prospective teacher spends about 20 hours per week studying and carries 14 to 16 hours per quarter. Most work part time to support themselves and supplement this income with loans, grants, and some support from families and spouses. About 60 percent of those who consider becoming secondary teachers actually graduate and apply for certification.

More information is needed about the 40 percent of prospective teachers who take Secondary Education 201 but who never complete their certification. It is known that some do not meet the minimum grade point average of 2.5 for admission to teacher education. Others have difficulty with the math and language requirements. A small number complete all of the requirements, including student teaching, but don't seek a teaching credential because of negative experiences in student teaching.

The findings from the Entry and Exit Questionnaires have dispelled some myths and stereotypes about prospective teachers. In many places in the United States, future teachers are drawn from the least capable students that attend colleges and universities. That is clearly not the case at Utah State University. Future teachers at USU are drawn from average to above average entering students. Furthermore, they maintain their grades as they progress through their major and minor requirements and teacher certification.

Future teachers are surprisingly optimistic about a career in teaching--even after completing student teaching, and in the face of low salaries and

public criticism. However, women, as a group, tend to be more apprehensive than men about teaching as a career. They worry about serious discipline problems, their ability to help handicapped students, and are less confident about their level of knowledge in both major and minor areas. And yet, women do well in their academic work and in student teaching, often exceeding men in GPA earned and student teaching evaluations. Apparently as a result, at the completion of their programs, their confidence and commitment rise to equal their abilities and performance.

The problem of the GPA between women's ability/performance and their confidence in themselves should be explored further. For now, both advisors and instructors of women should reassure women who are apprehensive that their confidence will probably rise as they progress through the program.

It is heartening that entering secondary students are quite confident and idealistic. They become somewhat more realistic as they move through the teacher education program and discover that teaching is a more complex profession than they initially realized. Nevertheless, upon completion of their programs of study and certification, they retain their idealism and commitment--even in the face of considerable criticism from the public and continuing low salaries.

Prospective teachers tend to prefer practical and "how-to-do-it" courses such as special methods classes, teaching reading and writing in the content areas, and student teaching, as opposed to theoretical foundations courses. This poses a special challenge to the instructors of the more theoretical courses. Overall, though, one can draw encouragement from these data. Capable and optimistic students are being drawn to teaching.

Recommendations for Further Study

Although the data being generated from the entrance and exit surveys are providing useful information about both the students and the undergraduate program of preparation in the Department of Secondary Education, additional questions have emerged which will require further research; these questions are listed below:

1. How often and in what fields do shifts in majors and minors occur during the time a student is enrolled in the program?
2. What is the degree of student satisfaction with courses offered by other departments (i.e., orientation, and methods)?
3. What accounts for some of the striking differences which emerge in female and male responses to the program?
4. What happens to the 40 percent of students who do not complete the program, keeping in mind that many of these students self-select out of the program either because they cannot meet the admission requirements or they decide teaching is not a valid career choice for them?
5. What picture can be drawn concerning student ownership and use of computers?
6. How do teachers in the field who work with our students view their preparation and attitudes?
7. What perceptions of their preparation will students have after having been teaching for several years?

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APPENDIX A

Appendix A contains Tables 1 through 35 showing prospective teachers' perceptions of their attitudes, knowledge, and skills, demographic characteristics, sources of financial support, teaching experience before entering the program, judgments of the teaching profession and salaries, etc.

Table 1

Percent of Students Who Responded on Attitudes, Knowledge and Skills Scales

	Questions		Very Low	Low	Aver	High	Very High
1.	My ability to relate to young people of middle and high school age is:	Enter/F	0	0	9	63	28
		Enter/M	0	0	16	54	29
		Exit/F	0	1	6	54	39
		Exit/M	0	1	7	63	29
2.	My ability to earn students' cooperation and to maintain an orderly learning environment is:	Enter/F	0	0	37	55	8
		Enter/M	0	3	32	57	8
		Exit/F	0	0	15	69	16
		Exit/M	0	1	13	73	13
3.	My ability to organize and manage the details of a classroom is:	Enter/F	0	0	25	60	16
		Enter/M	0	1	36	50	13
		Exit/F	0	1	13	58	28
		Exit/M	0	0	17	60	23
4.	My ability to deal skillfully with students who cause serioius discipline problems is:	Enter/F	0	10	64	25	1
		Enter/M	0	8	48	38	6
		Exit/F	1	2	42	48	7
		Exit/M	0	1	39	50	10
5.	My ability to help handicapped students in my classroom is:	Enter/F	0	13	44	34	9
		Enter/M	1	8	43	37	11
		Exit/F	1	8	43	32	16
		Exit/M	1	6	50	37	6

Table 1 continued...

	Questions		Very Low	Low	Aver	High	Very High
6.	My knowlege of subject matter in my major is:	Enter/F	0	5	20	55	20
		Enter/M	0	6	18	46	30
		Exit/F	0	1	8	46	45
		Exit/M	0	0	10	37	53
7.	My knowledge of subject matter in my minor is:	Enter/F	0	10	36	41	13
		Enter/M	1	8	37	40	14
		Exit/F	0	0	22	57	21
		Exit/M	0	2	18	33	47
8.	My ability to adapt and "translate" information to the level & interests of secondary students is:	Enter/F	0	2	29	55	14
		Enter/M	0	1	22	63	14
		Exit/M	1	1	21	55	22
		Exit/F	1	0	13	67	19
9.	My knowedge of research about effective teaching methods & techniques is:	Enter/F	2	18	48	28	4
		Enter/M	1	21	43	26	9
		Exit/F	1	6	42	45	6
		Exit/M	0	0	46	46	9
10.	My ability to apply and use effective teaching methods and techniques is:	Enter/F	1	9	46	39	5
		Enter/M	1	12	47	29	10
		Exit/F	2	1	21	63	13
		Exit/M	0	0	29	57	14
11.	My skill in using directed reading activities to help students read better is:	Exit/F	5	5	42	36	12
		Exit/M	4	6	46	34	10

Table 1 continued...

	Questions		Very Low	Low	Aver	High	Very High
12.	My skill in using cognitive maps, advance organizers, etc., to help students organize and understand information is:	Exit/F	2	5	39	42	12
		Exit/M	3	4	41	41	10
13.	My knowledge about time-on-task, high expectations, adequate reviews for over-learning is:	Exit/F	2	5	43	39	11
		Exit/M	0	1	41	50	7
14.	My ability to help my students do well on achievement tests is:	Exit/F	8	2	42	45	2
		Exit/M	3	0	46	44	7
15.	My skill in creating an accepting climate in the classroom in which students feel free to ask questions or engage in discussion is:	Enter/F	0	3	20	64	13
		Enter/M	0	0	20	61	19
		Exit/F	0	1	6	53	40
		Exit/M	0	0	6	50	44
16.	My skill in asking interesting questions and leading class discussion or demonstration is:	Enter/F	0	7	38	50	6
		Enter/M	0	2	37	51	10
		Exit/F	0	1	21	54	24
		Exit/M	0	0	12	65	23
17.	My "computer literacy" or ability to use a computer for instruction, word processing, or processing grades is:	Exit/F	1	4	37	30	28
		Exit/M	0	12	33	32	23

Table 1 continued...

Questions		Very Low	Low	Aver	High	Very High
18. My "listening skills" for verbal and non-verbal information is:	Enter/F	0	1	22	59	18
	Enter/M	0	4	40	48	8
	Exit/F	0	0	17	57	27
	Exit/M	0	0	15	65	20
19. As a result of my teacher education classes and student teaching, my appreciation for the complexity and demanding nature of teaching is:	Exit/F	0	0	4	36	60
	Exit/M	0	1	10	48	41
20. My ability to make the transition from being a a capable student to becoming a professional teacher is:	Exit/F	0	1	17	55	27
	Exit/M	0	0	4	67	29
21. My ability to maintain my idealism and optimism about about teaching in the face in the face of discouragement, unappreciative students, etc., is probably:	Exit/F	0	0	31	48	21
	Exit/M	0	1	21	64	13
22. My ability to recognize needed changes in myself is:	Enter/F	0	3	31	49	17
	Enter/M	0	4	34	42	20
	Exit/F	0	0	13	54	33
	Exit/M	0	0	13	71	16

Questions			Very Low	Low	Aver	High	Very High
23.	Overall, my self-confidence is:	Entry/F	1	3	36	50	10
		Entry/M	0	2	20	57	21
		Exit/F	0	0	19	61	19
		Exit/M	0	0	7	61	31
24.	My confidence in my ability to teach successfully is:	Entry/F	0	3	26	5	13
		Entry/M	0	1	16	60	23
		Exit/F	0	1	12	61	25
		Exit/M	0	0	6	61	33
25.	My commitment to a career in education, compared to when I first entered teacher education is:	Enter/F	0	2	17	52	29
		Enter/M	0	4	19	50	27
		Exit/F	2	2	19	45	32
		Exit/M	1	2	20	50	27

Notes:

Enter/F = Female students at Entry
Enter/M = Male students at Entry

Exit/ F = Female students at Exit
Exit/M = Male students at Exit

Those questions with only Exit data were not included on the Entry Questionnaire.

Table 2

Teaching Majors of Prospective Teachers at Entry & Exit

	Entry		Exit	
	# Men	# Women	# Men	# Women
Chemistry	0	0	1	0
Dance	0	2	0	2
Economics	1	0	0	0
English	1	26	6	2
Health	1	4	2	0
History	10	6	3	1
Mathematics	15	19	4	6
Modern Languages	4	10	1	5
Physical Education	19	12	4	3
Physics	1	0	0	0
Political Science	2	1	0	1
Psychology	1	3	1	1
Sociology	2	3	1	0
Theater Arts	2	0	0	1
Other	5	3	2	2
Undecided	0	4	0	0

Table 3

Teaching Minors of Prospective Teachers at Entry & Exit

	Entry		Exit	
	# of Men	# of Women	# Men	# Women
Business Educ	3	1	1	1
Chemistry	1	1	0	1
Computer Science	3	6	0	2
Dance	0	2	0	0
Economics	1	1	0	1
English	9	4	0	5
Geography	6	0	1	1
Health Education	1	7	4	4
History	6	3	4	0
Instructional Tech	1	2	0	0
Journalism	0	1	0	0
Marketing Educ	0	1	0	0
Mathematics	5	9	1	3
Modern Languages	9	10	5	2
Music Educ	0	5	0	1
Physical Educ	1	6	1	1
P.E./Coaching	4	3	0	0
Physics	4	3	1	2
Political Science	3	1	1	2
Psychology	2	7	0	1
Sociology	2	1	1	1
Theatre Arts	1	1	0	1
Zoology	0	3	0	0
Undecided	2	7	0	0

Table 4

Composite Teaching Majors at Entry and Exit

	Entry		Exit	
	# of Men	# of Women	# Men	# Women
Agriculture Educ	0	1	8	1
Art Educ	4	5	3	5
Biological Science	6	5	11	3
Business Educ	1	1	4	13
Earth Science	0	1	0	0
Home Economics	0	1	0	11
Math-Computer Sci	2	8	3	1
Industrial/tech	0	0	9	0
Marketing Ed	0	0	3	5
Social Studies Comp	3	1	0	2
Social Studies Human...	5	1	0	0
Others	2	1	0	0

Table 5

Number of Students who Receive Secondary Teaching Certificates

Year	# Who Certify
1980	182
1981	133
1982	149
1983	166
1984	144
1985	168
1986	157
1987	153
Average	156

Table 6

High School Size and Location

Average graduating class size = 295

Average high school total enrollments = 1200 students.

Mostly suburban and urban setting = 96%

Table 7

High School and College Grade Point Averages

Average high school GPA	3.17
Average college GPA upon admission to teacher education	2.70
Average GPA at Exit	2.95

Table 8

Age of Prospective Teachers at Entry and Exit

	Mean	Range
Entry	22	17-54
Exit	26	21-48

Table 9

Gender of Entering and Exiting Prospective Teachers

	Entering	Exiting
Female	58%	54%
Male	42%	46%

Table 10

Gender and Age Cross Tabulation of Prospective Teachers at Entry & Exit

	Entering	
	17-24	25+ yrs age
Female	80%	20%
Male	70%	30%
	Exiting	
	17-24	25+ yrs age
Female	71%	29%
Male	25%	75%

Table 11

Year in School During Which Students Decided to Become Prospective Teachers

Exit Questionnaire Responses

	Frosh	Soph	Junior	Senior	After BS
Under 25	43%	18%	36%		0%
25±	26%	22%	24%	3%	26%

Table 12

Gender Cross-tabulated with Time of Decision to Become a Teacher

Exit Questionnaire Responses

	Frosh	Soph	Junior	Senior	After BS
Female	44%	13%	33%	4%	6%
Male	23%	28%	28%	1%	20%

Table 13

Percent of Prospective Teachers by Gender Who Changed Majors

Exit Questionnaire Responses

Female	43%
Male	34%

Table 14

Relationship between Age and Marital Status of Prospective Teachers

	Exit Questionnaire Responses	
	Single	Married
Under 25	49%	51%
25+	26%	74%

Table 15

Marital Status of Prospective Teachers Cross-tabulated with Gender

	Exit Questionnaire Responses	
	Single	Married
Female	49%	51%
Male	24%	76%

Table 16

Percent Who Worked to Support Themselves Cross-tabulated w/Gender

Exit Questionnaire Responses

	None	All or part
Female	18%	82%
Male	19%	81%

Table 17

Number of Hours Worked per Week by Prospective Teachers

Exit Responses

	Didn't work	1-9	10-19	20-29	30+
Female	18%	11%	31%	30%	10%
Male	19%	9%	19%	24%	30%

Table 18

Number of Hours Worked per Week While Student Teaching

Exit Responses

	Didn't work	1-9	10-19	20-29	30+
Female	62%	15%	11%	12%	1%
Male	60%	9%	16%	7%	6%

Table 19

Financial Support from Spouse Cross-tabulated with Gender

	Exit Responses	
	None	All or part
Female	72%	27%
Male	57%	41%

Table 20

Financial Support from Personal Savings Cross-tabulated with Gender

	Exit Responses	
	None	All or part
Female	66%	34%
Male	66%	34%

Table 21

Financial Support from Parents Cross-tabulated with Gender

	Exit Responses	
	None	All or part
Female	36%	64%
Male	57%	43%

Table 22

Percent Who have Loans from USU Cross-tabulated with Gender

	Exit Responses	
	Number	Percent
Female	24	29%
Male	24	34%

Table 23

Percent who have Loans not from USU Cross-tabulated with Gender

	Exit Responses	
	Number	Percent
Female	14	17%
Male	14	20%

Table 24

Percent who have Scholarships from USU Cross-tabulated with Gender

	Exit Responses	
	Number	Percent
Female	45%	54%
Male	22%	31%

Table 25

Percent of Prospective Teachers Who Participated in Work-Study Programs at USU Cross-tabulated with Gender

	Exit Responses	
	Number	Percent
Female	8%	10%
Male	6%	8%

Table 26

Percent of Prospective Teachers who Participated In Job Service Rehabilitation Grant Programs While at USU

	Exit Responses	
	Number	Percent
Female	0	0%
Male	3	4%

Table 27

Number of Hours of Study per Week

	Entry Responses	
	Mean	Range
Mean hours study per week	19.6	8 to 32

	Exit Responses	
	Mean	Range
Mean hours study per week	20.4	12 to 55

Table 28

Number of Hours Studying in Library per Week

	Entry Responses
Number of Hours Studying in library	5 hours

Table 29

Average Number of Credits per Quarter Taken by Prospective Teachers

	Entry/Exit Responses
	Hours per Qtr
Entry	14.5
Exit	15.6

Table 30

Teaching Experience Prior to Entering Secondary Education

Type of experience	Entry Responses Percent Who Had Prior Experience
Tutor, Tchrs aide	70%
Church teaching	64%
Athletic coach	35%
Camp Counselor	24%
Boy/Girl Scouts	17%
Taught music lessons	13%
Substituted in schools	9%
Taught own children	9%
Other, misc.	27%

Note: Total adds to more than 100% because respondents could check several items.

Table 31

Experience in Schools Secondary Teachers Obtain in Program

Sec Educ 201 = 30 hours serving as a teacher's aide or tutoring

Sec Educ 301 = At least 1 day in schools through field trip

Sec Educ 510 = 6 hours working with students

Methods classes = 10 to 40 hours in schools working with students

Sec Educ 460, etc. = Student teaching requires one full quarter in school full time - at least 160 hours directly teaching

Table 32

Percent Who Read Newspapers and Magazines Not Assigned

	Entry Responses	
Newspapers	% Males Who Read	% Females Who Read
Logan Herald Journal	70%	54%
Ogden Standard Examiner	3%	13%
Salt Lake Tribune	37%	38%
Salt Lake Deseret News	23%	33%
USA Today	21%	15%
Wall Street Journal	7%	9%
Other newspapers	22%	30%
Magazines		
Readers Digest	34%	45%
Newsweek	31%	33%
Time	40%	40%
US News & World Report	11%	18%
Sports Illustrated	46%	19%
Other magazines	40%	45%

Table 33

Prospective Teachers' Expectations and Perceptions About Teaching

Entry Responses

	Female	Male
I'm entering teaching because it needs to be reformed and I think that I can help improve it.	20%	19%
I'm entering teaching in spite of the criticism; in my judgment, most of the criticism is not justified. Teachers I know work hard and are pretty effective.	68%	55%
Although I'm preparing to become a teacher, I'm disturbed by the criticism; it is hard to do a good job when receiving abuse in the media.	3%	3%
Other responses.	10%	23%

Table 34

Prospective Teachers' Reactions to Low Pay in Teaching Profession

"Teaching is one of the lowest paid professions. How do you feel about entering a profession in which salaries will be low?"

	Female	Male
I'm reconciled to the relatively low salaries. While the pay is low, job security is good and I'll have 3 months off in the summer.	25%	24%
Although the pay is low, the job is important enough that I'm committed to teaching anyway.	53%	41%
The low pay is a real concern to me. I see it as a reflection of the low esteem of teaching in the eyes of the public. Something must be done to improve salaries for teachers.	28%	33%
The pay is so low that I may not enter the profession.	1%	6%
Other:	5%	11%

Note:

Respondents checked more than one item so totals are greater than 100%.

Table 35

Ways in which Prospective Teachers Plan to Supplement their Teachers' Salaries

	Female	Male
Another job during summers	46%	59%
Part-time job during school year	4%	9%
My spouse will work so we will have two incomes	60%	46%
I have a business or farm to supplement my teaching salary:	2%	25%
Other:	13%	13%

APPENDIX B

Appendix B contains Tables 36 - 84 showing student evaluations of the quality of their advisement, comparisons of student teaching to course work, and evaluations of the courses in the teacher certification program.

Evaluation of Teacher Education Program

Table 36

Quality of Advising by Advisors in Majors and Minors

Responses to Exit Questionnaire

	Poor	Below Average	Average/Okay	Good	Excellent
Female	1%	1%	12%	38%	47%
Male	6%	6%	10%	44%	33%

Table 37

Quality of Advising by Advisors in Secondary Education

Responses to Exit Questionnaire

	Poor	Below Average	Average/Okay	Good	Excellent
Female	9%	2%	27%	30%	32%
Male	0%	4%	10%	53%	33%

Table 38

Perceived Difficulty of Sec Educ 201 Course "Orientation to Sec Teaching"

Responses to EXIT Questionnaire

	Easy	Medium	Difficult
Female	23%	67%	10%
Male	30%	57%	13%

Table 39

Quality of Instruction of Sec Educ 201 "Orientation to Sec Teaching"

Responses on the EXIT Questionnaire

	A/Excellent	B/Good	C/Adequate	D/Poor
Female	29%	45%	21%	5%
Male	21%	35%	31%	14%

Table 40

Quality of Books and Teaching Materials in Sec Educ 201 "Orientation to Sec Teaching"

Responses on the EXIT Questionnaire

	A/Excellent	B/Good	C/Adequate	D/Poor
Female	18%	49%	18%	15%
Male	10%	35%	40%	15%

Table 41

Usefulness of Sec Educ 201 "Orientation to Sec Teaching"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	17%	25%	42%	17%
Male	8%	40%	36%	16%

Table 42

Perceived Difficulty of Sec Educ 301 Course "Teaching Skill Laboratory"

Responses to Exit Questionnaire

	Easy	Medium	Hard
Female	32%	64%	4%
Male	20%	72%	7%

Table 43

Quality of Instruction of Sec Educ 301 Course "Teaching Skill Laboratory"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	45%	36%	12%	7%
Male	48%	37%	14%	2%

Table 44

Quality of Books and Teaching Materials in Sec Educ 301 "Teaching Skill Laboratory"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	25%	48%	20%	7%
Male	19%	58%	19%	5%

Table 45

Usefulness of Sec Educ 301 "Teaching Skill Laboratory"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	19%	48%	24%	9%
Male	26%	44%	28%	2%

Table 46

Perceived Difficulty of Secondary Education 302 "Social Foundations of Education"

Responses to Exit Questionnaire

	Easy	Medium	Difficult
Female	38%	55%	8%
Male	36%	62%	2%

Table 47

Quality of Instruction of Sec Educ 302 Course "Social Foundations of Education"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	22%	37%	31%	11%
Male	26%	34%	22%	18%

Table 48

Quality of Books and Teaching Materials in Sec Educ 302 "Social Foundations of Education"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	16%	26%	44%	15%
Male	10%	43%	29%	19%

Table 49

Usefulness of Sec Educ 302 "Social Foundations of Education"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	6%	28%	27%	39%
Male	10%	15%	38%	37%

Table 50

Perceived Difficulty of Teaching Methods Courses

Responses to Exit Questionnaire

	Easy	Medium	Hard
Female	15%	37%	48%
Male	17%	67%	17%

Table 51

Quality of Instruction of Sec Educ Methods Courses

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	72%	21%	7%	0%
Male	45%	40%	15%	0%

Table 52

Quality of Books and Teaching Materials in Sec Educ Methods Courses

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	68%	23%	5%	4%
Male	37%	37%	26%	0%

Table 53

Usefulness of Sec Educ Methods Courses

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	72%	21%	7%	0%
Male	45%	40%	15%	0%

Table 54

Perceived Difficulty of Psych 366 "Educational Psychology"

Responses to Exit Questionnaire

	Easy	Medium	Difficult
Female	32%	51%	17%
Male	35%	48%	17%

Table 55

Quality of Instruction of Psych 366 "Educational Psychology"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	28%	28%	22%	21%
Male	17%	23%	25%	36%

Table 56

Quality of Books and Teaching Materials in Psych 366 "Educational Psychology"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	11%	30%	38%	21%
Male	11%	25%	30%	34%

Table 57

Usefulness of Psych 366 "Educational Psychology"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	16%	26%	32%	26%
Male	14%	20%	30%	36%

Table 58

Perceived Difficulty of Sec Educ 510 " Content Area Reading/Writing"

Responses to Exit Questionnaire

	Easy	Medium	Difficult
Female	8%	57%	34%
Male	6%	57%	37%

Table 59

Quality of Instruction of Sec Educ 510 "Content Area Reading/Writing"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	56%	30%	11%	3%
Male	65%	18%	10%	8%

Table 60

Quality of Books and Teaching Materials in Sec Educ 510 "Content Area Reading/Writing"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	38%	36%	23%	3%
Male	30%	38%	22%	10%

Table 61

Usefulness of Sec Educ 510 "Content Area Reading/Writing"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	44%	33%	13%	11%
Male	38%	40%	13%	11%

Table 62

Perceived Difficulty of IT 442 "Utilization & Prod of Media for Sec Tchrs"

Responses to Exit Questionnaire

	Easy	Medium	Difficult
Female	21%	55%	24%
Male	15%	62%	23%

Table 63

Quality of Instruction of IT 442 "Utilization & Prod of Media for Sec Tchrs"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	54%	35%	9%	2%
Male	55%	40%	5%	0%

Table 64

Quality of Books and Teaching Materials in IT 442

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	44%	37%	17%	2%
Male	45%	40%	13%	2%

Table 65

Usefulness of IT 442 "Utilization & Prod of Media for Sec Tchrs"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	59%	22%	13%	7%
Male	42%	45%	11%	3%

Table 66

Perceived Difficulty of IT 522 "Computer Literacy for Educators"

Responses to Exit Questionnaire

	Easy	Medium	Difficult
Female	42%	38%	21%
Male	10%	71%	19%

Table 67

Quality of the Instruction of IT 522 "Computer Literacy for Educators"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	22%	52%	17%	9%
Male	18%	46%	18%	18%

Table 68

Quality of Books and Teaching Materials in IT 522 "Computer Literacy for Educators"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	10%	20%	60%	10%
Male	19%	29%	33%	19%

Table 69

Usefulness of IT 522 "Computer Literacy for Educators"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	22%	44%	35%	0%
Male	50%	36%	9%	5%

Table 70

Perceived Difficulty of Special Education 301"Education of the Exceptional Child"

	Responses to Exit Questionnaire		
	Easy	Medium	Difficult
Female	14%	63%	23%
Male	6%	77%	17%

Table 71

Quality of Instruction of Special Education 301 "Education of the Exceptional Child"

	Responses to Exit Questionnaire			
	A=Excellent	B=Good	C=Adequate	D=Poor
Female	49%	24%	20%	7%
Male	27%	50%	18%	6%

Table 72

Quality of Books and Teaching Materials in Special Education 301 "Education of the Exceptional Child"

	Responses to Exit Questionnaire			
	A=Excellent	B=Good	C=Adequate	D=Poor
Female	47%	31%	18%	4%
Male	24%	49%	27%	0%

Table 73

Usefulness of Special Education 301 "Education of the Exceptional Child"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	35%	37%	25%	4%
Male	26%	43%	26%	6%

Table 74

Value of Teacher Education Courses, Not Including Student Teaching, Compared to Courses in Major and Minor

Responses to Exit Questionnaire

	Other	Less Useful	About Equal	More Useful
Female	4%	54%	35%	6%
Male	7%	47%	43%	3%

Table 75

Value of Student Teaching in Compared to other Education Courses

Responses to Exit Questionnaire

	Other	Less Useful	About Equal	More Useful
Female	3%	1%	10%	86%
Male	1%	0%	10%	89%

Table 76

Value of Student Teaching in Preparing to Become a Teacher Compared to Major/Minor Courses

Responses to Exit Questionnaire

	Other	Less Useful	About Equal	More Useful
Female	4%	6%	45%	45%
Male	0%	4%	43%	53%
Combined	2%	5%	44%	49%

Table 77

Perceived Difficulty of Sec Educ 460 "Student Teaching"

Responses to Exit Questionnaire

	Easy	Medium	Hard
Female	3%	32%	65%
Male	0%	52%	48%

Table 78

Quality of Instruction in Sec Educ 460 "Student Teaching"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	70%	21%	9%	0%
Male	73%	18%	9%	0%

Table 79

Quality of books and teaching materials of Sec Educ 460 "Student Teaching"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	67%	24%	9%	0%
Male	89%	6%	6%	0%

Table 80

Usefulness of Sec Educ 460 "Student Teaching"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	87%	8%	5%	0%
Male	93%	2%	2%	2%

Table 81

Perceived Difficulty of Sec Educ 450 "Student Teaching Seminar"

Responses to Exit Questionnaire

	Easy	Medium	Hard
Female	53%	32%	15%
Male	49%	41%	10%

Table 82

Quality of Instruction in Sec Educ 450 "Student Teaching Seminar"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	42%	40%	10%	8%
Male	27%	33%	31%	8%

Table 83

Quality of Books and Teaching Materials of Sec Educ 450 "Student Teaching Seminar"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	44%	28%	20%	8%
Male	19%	38%	31%	13%

Table 84

Usefulness of Sec Educ 450 " Student Teaching Seminar"

Responses to Exit Questionnaire

	A=Excellent	B=Good	C=Adequate	D=Poor
Female	42%	32%	15%	12%
Male	20%	38%	27%	16%